

# Rugged managed 10-port Gbit Switch built in robust IP67 housing

## General Description

The  $\mu$ MAGBES Family is a 10 to 28 port manageable Gigabit Ethernet switch of the 4th generation of MPL switches. The robust design, low power consumption, and the various mechanical configurations make the switch ideally suited for any application that need a rugged and reliable solution.

Besides manageable features such as Long-term availability, Quality of Service, Port Based VLAN, and IEEE 802.1Q VLAN, the  $\mu$ MAGBES also supports Rapid Spanning Tree IEEE 802.1D 2004 and allows to use redundant Ethernet connections without introducing network loops.

This SWaP-C  $\mu$ MAGBES solution is equipped with D38999 connectors. The  $\mu$ MAGBES switch is extremely compact and space optimized.

Supply power is 5–36VDC and uses under any condition less than 6W (10-ports). Other voltages can be offered based on the environment needs. Optional with MIL-STD-1275D support.

The product can be operated at -20°C to 60°C and optionally at -40°C to 85°C. The solution is available in a compact MIL housing (as shown), or with alternative housings & connectors.

## Key features are:

- 66-pin D38999 connectors
- Wide input 5-36VDC
- Fully manageable over Web Interface or Telnet
- Fanless operation
- Extended temperature versions -40 to +85°C
- Can be used unmanaged
- Long-term availability
- 1588 PTP support

## These features make

the  $\mu$ MAGBES switch ideally suited for any rugged or industrial network application with long life cycle requirements. Due to the low power consumption, robust and flexible design, the product is well suited for tough environments. The  $\mu$ MAGBES makes it easy to set up a challenging network!



$\mu$ MAGBES-A10MDX in IP67 housing

## Alternative housings & configurations



All MPL products are 100% designed and manufactured in Switzerland.

## Technical Features

### Board Key Data

Switch lookup Engine	Supports up to 1024 MAC entries with automatic learning and aging Supports auto crossover (Auto MDI/MDIX) and polarity correction
Jumbo Frame support	up to 10k Byte
Status LED	Power

### Interfaces

LAN	10 x Gigabit on two 66-pin D38999 connectors, each with 5-LAN ports (Key N & Key A)
CLI	Optional CLI interface

### Management Software

MPL developed and maintains a management SW with easy to use web interface.

Management supports:	• Port Based VLAN	• IEEE 802.1Q VLAN
(Layer 2 managed sw)	• Quality of Service	• IEEE 802.1X MAC Address Checking
	• IEEE 802.1D RSTP support	• Port monitoring
	• SNMP V1, V2c, V3 support	• Firmware Update via HTTP or TFTP
	• Telnet	• TLS (HTTPS)
	• IGMPv3 snooping	• gPTP (1588 PTP support)

### Power

Input voltage	5VDC -36VDC input range (over D38999 connector in combination with LAN)
Power consumption	Typically 6W per 10 ports

### Environment

Operating Temperature	-20°C to 60°C (-4°F to 140°F) at full operation
Extended Temperature	Optional -40°C to 85°C (-40°F to 185°F) at full operation
Storage Temperature	-45°C to 85°C (-49°F to 185°F)
Relative Humidity	5% to 95% none condensing

### Standard Compliance

The μMAGBES is designed to meet or even exceed the most common standard, particular references are:

EMC	EN 55022, EN 55024, EN 61000, MIL-STD-461E
Shock & Vibration	EN 60068
Environmental & Safety	EN 50155, MIL-STD-810-F, EN 60601, EN 60950
Approval List	CE, IEC 60945, IACS E10

### Dimensions

<b>Chassis version</b>	<b>length</b>	<b>width</b>	<b>heights</b>	<b>weight</b>
10 port boxed version	130mm	x 130mm	x 62.5mm	920g

Other housings & dimensions, connectors on request

Optional coating and bonding available

### Ordering Information

Product	Description
μMAGBES	Managed Ethernet Switch

  

Version	Description
A	Standard
C	With CLI

  

Ports	Description
10	Quantity of ports
19	Quantity of ports
28	Quantity of ports

  

Option	Description
X	-40°C to +85°C

  

Copper	Description
R	RJ45
HR	Horizontal Header (MOQ 50 pieces)
H	Header
MX/MD	M12 (X or D coded)
D	D38999 connector

  

Mount	Description
O	Open Frame
D	DIN-Rail
F	Flange
R	Rack
M	MIL housing

μMAGBES-A10DRX